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130±14.3 mg/dl (7.2±0.79 mmol/L; P=0.001) after 5 weeks on the diet. The mean 24-h integrated net glucose area response decreased from 1269±269 mg·hr/dl (70.5±14.9 μmol·hr/L) to 449±129 mg·hr/dl (24.9±7.2 μmol·hr/L) (P=0.001). The total area response decreased from 6717±501 mg·hr/dl (373±27.8 μmol·hr/L) to 3724±348 mg·hr/dl (207±19.3 μmol·hr/L; P=0.0001).

The mean fasting serum insulin concentration was unchanged (8.4±1.1 μU/ml (50.4±6.6 pmol/L) and 9.0±1.0 μU/ml (54±6 pmol/L)) before and after 5 weeks on the diet, respectively. The mean 24-h integrated net insulin area response and the total integrated insulin area response also remained essentially unchanged after 5 weeks on the diet.

The mean fasting serum C-peptide concentration also was unchanged after 5 weeks on the diet (0.6±0.1 ng/ml to 0.8±0.2 ng/ml, P=0.3). The 24-h time course response was similar to the insulin response. The net C-peptide area response decreased from 11.4±2.4 ng·hr/ml to 10.6±1.4 ng·hr/ml after 5 weeks on the Diet<sub>30</sub>. This was not statistically significant (P>0.05). The 24-h total area did not change before or after the diet, 25±2.9 ng·hr/ml to 25.8±2.54 ng·hr/ml respectively.

The mean % tGHB decreased from 10.8±0.4% to 9.1±0.5%, before and after the diet respectively (P<0.0001). In addition, at the end of the study, it was still decreasing in an essentially linear fashion.

The mean fasting plasma glucagon concentrations were similar before and after the diet; 76±3.1 pg/ml and 77±11.1 pg/ml, respectively. Both the 24-h integrated net response and the 24-h total area response increased after 5 weeks on the diet. These were not statistically significant (P=0.33 and P=0.32, respectively).

The mean fasting plasma triacylglycerol concentration significantly decreased from 190±24.5 mg/dl to 113±9.4 mg/dl after 5 weeks on the diet (P=0.007); however the decrease seen with the 24-h net area was not statistically significant. The 24-h total area response significantly decreased from 5695±806 mg·hr/ml to 3586±326 mg·hr/ml (P=0.008). The total cholesterol concentration significantly decreased from 189 mg/dl to 152 mg/dl after 5 weeks on the diet (P=0.004). The plasma LDL and HDL concentration decreased from 113 to 95 and from 37 to 34, respectively, which was not significant.

## Example 6

## Results #2

The mean fasting NEFA concentrations decreased from 691±74.6 μEq/L to 622±54.8 μEq/L. This was not statistically significant (P>0.05). The mean 24-h integrated net NEFA area response was increased after 5 weeks on the Diet<sub>30</sub>, however this was not significant (P>0.05). Differences in the 24-h total areas were also not statistically significant.

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The mean fasting alpha amino acid nitrogen concentration was 4.01±0.1 mg/dl before the diet and remained unchanged after 5 weeks on the diet. The 24-h integrated net and 24-h total area responses were significantly increased after 5-weeks on the Diet<sub>30</sub>.

The mean fasting plasma creatinine level remained unchanged, 0.9 mg/dl and 0.9 mg/dl, before and after the diet respectively. However, the mean 24-h integrated net creatinine response increased from 0.3±0.3 mg·hr/dl to 1.7±0.5 mg·hr/dl (P=0.768). This difference was also present when correcting for the baseline with the 24-h total area response.

The mean fasting uric acid concentration increased from 4.7±0.4 mg/dl to 5.5±0.4 mg/dl (P=0.002) and remained elevated throughout the 24-h study period. The 24-h net area decreased modestly after 5 weeks on the diet (P=0.9). However, the 24-h integrated total area significantly increased from 106±9.6 mg·hr/dl to 124±8.2 mg·hr/dl (P=0.0013).

The mean fasting plasma urea nitrogen concentration increased from 15±1 mg/dl to 19±1.8 mg/dl after 5 weeks on the diet (P<0.05). The 24-h net area response increased from -4±7.1 mg·hr/ml to 28±11.7 mg·hr/ml; however this was not significant (P=0.09). The 24-h integrated total area increased from 346±22 mg/dl to 479±42 mg/dl (P=0.0038).

## OTHER EMBODIMENTS

It is to be understood that while the invention has been described in conjunction with the detailed description thereof, the foregoing description is intended to illustrate and not limit the scope of the invention, which is defined by the scope of the appended claims. Other aspects, advantages, and modifications are within the scope of the following claims.

What is claimed is:

1. A method of reducing glycohemoglobin and fasting glucose levels in an individual, comprising:
  - providing an article of manufacture, wherein the article of manufacture comprises food items for a single day, wherein the food items have a nutritional composition that consists essentially of 30% protein, 40% fats, and 30% carbohydrates, and
  - having the individual consume the food items each day for a period of five weeks to significantly reduce the levels of glycohemoglobin and fasting glucose in the individual.
2. The method of claim 1, wherein ingestion of the food items does not result in ketosis in the individual.
3. The method of claim 1, wherein ingestion of the food items results in maintenance of the individual's weight.
4. The method of claim 1, wherein ingestion of the food items does not result in the individual losing weight.

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